

CLAIMS

1. A method of removing sulphides and other volatile contaminants from liquor vapor condensate from a pulp manufacturing process,

characterized therein,

that the said liquor vapor condensate is fed into a stripper (1), which is part of a closed loop comprising said stripper (1) and a regenerative thermal oxidization process (RTO)(2), in which loop a gas (4), primarily consisting of air and such components formed or stripped off in the loop, is circulated, and where the circulating gas is stripping off sulphides and other volatile components from the liquor vapor condensate (5), whereafter the gas stream (6) is fed into a RTO-process (2), where the stripped off components are combusted under formation of SO_2 , and thereafter is the SO_2 enriched gas (7) fed either to a SO_2 scrubber (3), where preferably alkali is used as absorption medium (8), whereafter the circulating gas is returned to the stripper (1).

2. A method as claimed in claim 1,

characterized in,

that the SO_2 scrubber (3) is part of the closed loop.

3. A method as claimed in claims 1 or 2,

characterized in,

that a minor portion of the gas (10) is bled off from the loop, at the same time air or some other oxygen containing gas (9) is supplied, to ensure that sufficient oxygen is present to safeguard that the oxidization in the RTO-process (2) takes place.

4. A method as claimed in anyone of the preceding claims,

characterized in,

that the alkali (8) used as absorption medium is oxidized white liquor.

5. A method as claimed in anyone of the preceding claims,

characterized in,

that the degree of acidification in the SO₂ scrubber (3) is controlled to ensure sufficient amount of SO₂ remaining in the gas (4) when it is returned to the stripper (1§), where SO₂ acidifies the condensate (5) and thereby contributes to enhance the stripping off of sulphides from the condensate.

6. A method as claimed in claim 1,

characterized in,

that a heat exchanger is installed at a suitable place in the closed loop, to recover or supply energy and thereby to control the temperature in the system.

7. A method as claimed in claim 1,

characterized in,

that the amount of recirculated gas versus the amount of condensate is controlled for the purpose of optimizing the methanol content in the condensate.

8. A method as claimed in claim 7,

characterized in,

that such condensate is used as process water in the bleach plant to reduce the bleaching chemical cost.

9. A method as claimed in claim 1,

characterized in,

that the gas (10) being bled off from the system is minimized by using pure oxygen or an oxygen enriched air mixture, necessary as make up gas (9) for the oxidization.

10. A method as claimed in claims 1 or 2,

characterized in,

that the bled off gas (10) from the system is scrubbed with regard to SO₂ in a separate scrubber, which preferably is made up of several absorption steps.

11. A method as claimed in anyone of the preceding claims,
characterized in,

that the SO_2 level is raised to such a level in the system that the absorption medium in the
 SO_2 scrubber gets sufficient acidic, so that this fluid can be utilized as acidification agent
in other areas of the pulp mill, e.g. the bleach plant or the tall oil plant.